

Information Request NSTAR-JS-1-1

Please provide copies of (1) all prefiled testimony or reports (including all associated exhibits and attachments) submitted by Mr. Lively to state and federal regulatory authorities from 1999 to the present; and (2) transcripts of Mr. Lively's testimony at hearings (adjudicatory or non-adjudicatory) before state and federal regulatory authorities from 1999 to the present.

Response

- (1) Attached please find prefiled testimony in three cases in New York State appearing as NSTAR-JS-1-1-Attachment 1A, 1B, and 1C respectively.
- (2) Attached please find transcripts in three cases in New York State appearing as NSTAR-JS-1-1-Attachment 2A, 2B, and 2C respectively.

These materials constitute a bulk response and have been provided in bulk copy and DVD disk to the Requestor and to the D.T.E. They are available to others on DVD disk upon request.

NSTAR Electric
Department of Telecommunications and Energy
D.T.E. 03-121
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Person Responsible: Mark Lively
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Response (Attachment 1A)

- (1) Attached please find prefiled testimony in New York State Public Service Commission Case No. 02-E-0781/02-E-0780 appearing as NSTAR-JS-1-1-Attachment 1A.

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Response (Attachment 1B)

- (1) Attached please find prefiled testimony in New York State Public Service Commission Case No. 02-E-0779 appearing as NSTAR-JS-1-1-Attachment 1B.

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Response (Attachment 1C)

- (1) Attached please find prefiled testimony in New York State Public Service Commission Case No. 02-E-0551 appearing as NSTAR-JS-1-1-Attachment 1C.

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Response (Attachment 2A)

- (2) Attached please find relevant transcript in New York State Public Service Commission Case No. 02-E-0781/02-E-0780 appearing as NSTAR-JS-1-1-Attachment 2A.

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Response (Attachment 2B)

- (2) Attached please find relevant transcript in New York State Public Service Commission Case No. 02-E-0779 appearing as NSTAR-JS-1-1-Attachment 2B.

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Response (Attachment 2C)

- (2) Attached please find relevant transcript in New York State Public Service Commission Case No. 02-E-0551 appearing as NSTAR-JS-1-1-Attachment 2C.

These materials constitute a bulk response and have been provided in bulk copy and DVD disk to the Requestor and to the D.T.E. They are available to others on DVD disk upon request.

Information Request NSTAR-JS-1-2

Provide copies of all regulatory decisions addressing the issues covered by Mr. Lively in testimony provided in response to Information Request NSTAR-JS-1-1-1. Identify the decision making authority, docket number, year of the decision, and any official citation to the decision.

Response

There four regulatory decisions by the New York Public Service Commission related to the testimony referenced in response to Information Request NSTAR-JS-1-1.

NSTAR-JS-1-2 ATTACHMENT A

CASE 02-E-0780 - Proceeding on Motion of the Commission as to Orange and Rockland Utilities, Inc.'s Electric Tariff Filing to Establish a New Standby Service in Accordance with Commission Order Issued October 26, 2001 in Case 99-E-1470.

CASE 02-E-0781 - Proceeding on Motion of the Commission as to Consolidated Edison Company of New York, Inc.'s Electric Tariff Filing to Establish a New Standby Service in Accordance with Commission Order Issued October 26, 2001 in Case 99-E-1470.

ORDER ESTABLISHING ELECTRIC STANDBY RATES
(Issued and Effective July 29, 2003)

NSTAR-JS-1-2 ATTACHMENT B

New York State Electric & Gas Corporation's
CASE 02-E-0779 - Proceeding on Motion of the Commission as to New York State Electric & Gas Corporation's Electric Tariff Filing to Establish a New Standby Service in Accordance with

Commission Order Issued October 26, 2001 in Case 99-E-1470.

ORDER ESTABLISHING ELECTRIC STANDBY RATES
(Issued and Effective July 29, 2003)

NSTAR-JS-1-2 ATTACHMENT C

CASE 02-E-0551 - Proceeding on Motion of the Commission as to Rochester Gas & Electric Corporation's Electric Tariff Filing to Establish a New Standby Service in Accordance with Commission Order Issued October 26, 2001 in Case 99-E-1470.

ORDER ESTABLISHING ELECTRIC STANDBY RATES
(Issued and Effective July 29, 2003)

NSTAR-JS-1-2 ATTACHMENT D

CASE 02-E-0551 - Rochester Gas & Electric Corporation
CASE 02-E-0779 - New York State Electric & Gas Corporation
CASE 02-E-0780 - Orange & Rockland Utilities, Inc.
CASE 02-E-0781 - Consolidated Edison Company of New York, Inc.
CASE 02-E-1108 - Central Hudson Gas & Electric Corporation

Proceeding on Motion of the Commission as to Electric Tariff Filing to Establish New Standby Rates in Accordance with Commission Order Issued October 26, 2001 in Case 99-E-1470.

ORDER DIRECTING MODIFICATIONS TO STANDBY SERVICE TARIFFS
(Issued and Effective January 23, 2004)

These materials constitute a bulk response and have been provided in bulk copy and DVD disk to the Requestor and to the D.T.E. They are available to others on DVD disk upon request.

Information Request NSTAR-JS-1-3

Please list all matters on which Mr. Lively has consulted in the past five years by date beginning with the most current matters. For each matter, provide a brief description of the subject matter of the project and indicate for whom these services were provided. Please identify all documents relied upon by Mr. Lively in preparing this testimony. Please provide a copy of each identified document.

Response

Niagara Gas Transmission, Ltd.

The economic effect on Northern New York State of relocating a pipeline as the result of a bridge project

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Energy Group, Inc.

Intervention in electric and gas utility rate cases on behalf of the City of Calgary, Alberta, Canada

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

The E-Cubed Company, L.L.C.

Intervention in distributed generation standby cases in New York State

No documents from this project were relied upon in the preparation of the testimony in this proceeding. Mr. Lively gained experience in dealing with the issue of distributed generation and the reluctance of regulated distribution companies to deal with distributed generation in a non-combative manner.

The First Capital City Consultants, Inc.

Development of comments filed with the Federal Trade Commission on behalf of the Insulation Contractors Association of America on standards for insulation blown into the attics of residential construction.

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Gerson Lehman Group

Discussion of the North American utility market

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Sultan Qaboos University

Featured lecturer in a two day workshop on electric utility restructuring as it could be applied to the Sultanate of Oman.

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

International Law Institute

Speaker at workshops on U.S. regulatory practices that could be applicable to energy markets in developing countries, including Russia.

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Commonwealth Gas Services (Columbia Gas of Virginia)

Development of load research in regard to its customer choice program to show the daily imbalance of the participating marketers

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

IEEE Venezuela/University Simon Bolivar

Sole speaker at three day seminar in Caracas on electricity restructuring

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

R.J. Rudden Associates

Investigation of alternative approaches available to an independent system operator for dealing with member pricing

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Weiss & Yourman

Customer complaint about a utility violating its filed tariff in billing customers demand charges in perpetuity instead of only for 12 months

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

D.C. Office of People's Counsel

Analysis of restructuring proposals by PEPCo

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Washington Gas Light

Assistance in the development of load research in regard to its customer choice program to show the daily imbalance of the participating marketers

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Pennsylvania Office of Consumer Advocate

Preparation of comments to be filed with FERC on behalf of Pa OCA and the Ohio Consumer Counsel on the topic of pricing pipeline gas imbalances

No documents from this project were relied upon in the preparation of the testimony in this proceeding.

Information Request NSTAR-JS-1-4

Referring to lines 102 to 140, please provide a copy of each article identified.

Response

These materials constitute a bulk response as Attachments NSTAR-JS-1-4 (a) to NSTAR-JS-1-4(q) and have been provided in bulk copy and DVD disk to the Requestor and to the D.T.E. They are available to others on DVD disk upon request.

Mr. Lively notes that Attachment NSTAR-JS-1-4 (q) was already filed as Exhibit Joint Supporters-MBL-3 and that Attachment NSTAR-JS-1-4 (g) covers essentially the same material.

Attachment NSTAR-JS-1-4 (h) shows some of the benefits of distributed generation, in that there was sufficient distributed generation capacity in California during the time of the rolling blackouts to have prevented those blackouts if the local utilities had implemented a plan to get those distributed generators to operate in parallel with central station power plants.

Attachments NSTAR-JS-1-4 (i) and NSTAR-JS-1-4 (n) show a way for distributed generation to obtain the equivalent of capacity benefits by appropriate modification of an ISO reserve sharing program or installed capacity market.

Information Request NSTAR-JS-1-5

Please provide a copy of all articles, papers and other writings written by Mr. Lively on the following subjects:

- (a) standby service;
- (b) distributed generation;
- (c) distribution planning;
- (d) rate design or cost allocation for regulated utilities; and
- (e) PURPA and PURPA-related issues.

Response

For a list of such articles, see lines 102 to 140 of Mr. Lively's prefiled testimony. These articles are included in the material provided in response to NSTAR-JS-1-4.

Information Request NSTAR-JS-1-6

Provide copies of all correspondence between Mr. Lively and any regulated electric utility from 1999 to the present on matters relating to the subjects set forth in Information Request NSTAR-JS-1-1-5.

Response

Mr. Lively's search of his files has thus far yielded two letters responsive to this request, described below and attached hereto. If any other responsive, non-privileged correspondence is discovered, this response will be supplemented.

- Attachment NSTAR-JS-1-6(a) is a letter from Mr. Lively dated 2004 March 30 to Mr. Michael Hynick of FirstEnergy transmitting a draft of a paper for pricing the uninstructed deviations of independent power producers. Mr. Lively notes that there is an overlap between the definition of independent power producers used in the draft article and the definition of distributed generation as used in this proceeding.
- Attachment NSTAR-JS-1-6(b) is a letter from Mr. Lively dated 2004 March 23 to Mr. Steve Terelmes of AmerenEnergy declining to participate any further in the North American Energy Standards Board (NAESB) effort to price unscheduled flows of electricity due to the overly restrictive charter granted to the NAESB Inadvertent Interchange Payback Task Force (IIPTF). Other material in regard to Mr. Lively's participation in the NAESB IIPTF is posted at http://naesb.org/weq/weq_iiptf.asp. Though Mr. Lively does not believe that this other material should be considered to be responsive to this and the previous information request, he provides this link for completeness.

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Information Request NSTAR-JS-1-7

Identify which electric distribution companies Mr. Lively has been employed for or engaged by in his professional career for whom he has designed any portion of the company's distribution system. Identify the dates of such employment in this capacity and describe in detail the nature of Mr. Lively's design responsibilities.

Response

None

Information Request NSTAR-JS-1-8

Referring to Mr. Lively's testimony at page 9, lines 186-187, please identify the basis for Mr. Lively's belief that electric distribution companies in Massachusetts are not allowed to own or install distributed generation on their systems where such an installation is economic. Please provide specific citation to any orders of the Department or statutory provisions that set forth such a prohibition.

Response

Mr. Lively's understanding is that utilities in Massachusetts have been encouraged to divest themselves of most generation, including generation that might be considered to be distributed generation. Mr. Lively notes that this concept was discussed in "Comments Of NSTAR Electric In Response To The Notice Of Inquiry Regarding Distributed Generation in Docket" Docket D.T.E. 02-38. The portion on utility ownership is quoted below.

Utility ownership of distributed generation does raise policy issues for the Department in connection with the framework of industry restructuring. A central objective of the Electric Restructuring Act of 1997 (the "Act") was the creation of a competitive market structure in which customers have the ability to choose among competitive suppliers of generation services. The chosen means of developing a competitive market was to require utilities to divest their generation. The overall concept was that distribution and transmission functions would be separated from generation functions. Thus, utility ownership of distributed-generation facilities may present a potential inconsistency with the requirements of the law. However, the law appears to distinguish between utility ownership of generation for commercial, competitive purposes (which is not contemplated), and utility ownership of distributed generation for the purpose of enhancing the efficiency of its distribution system (which is contemplated). See G.L. c. 164, § 1; G.L. c. 40J, § 4E(f)(2). Therefore, it does not appear that there is a specific prohibition on the use and ownership of distributed generation by a utility.

From a practical perspective, it may be possible to structure utility ownership of distributed generation to be compatible with the development of the competitive market. For example, it is plausible to assume that a utility that owned distributed generation solely for the purpose of enhancing its distribution system would sell the output of those facilities into the spot market, and flow the proceeds back to its customers, with minimal impact on the competitive market. Moreover, the fact that the amount of such generation will be small for the foreseeable future (relative to the size of the market) suggests that there should not be a high level of concern over market impacts.

Because distributed generation technologies have the potential to provide system benefits in relation to planned system upgrades, the use of distributed generation by a utility could provide a benefit to distribution customers. Therefore, it would be appropriate for the Department to develop a policy endorsing the use and ownership of distributed generation by electric utilities where it can enhance system reliability in a cost-effective manner, and indicating that such usage and ownership to be consistent with the requirements of the Act. (“Comments Of NSTAR Electric In Response To The Notice Of Inquiry Regarding Distributed Generation in Docket” Docket D.T.E. 02-38, pp 14-15.)

Information Request NSTAR-JS-1-9

Referring to Mr. Lively's testimony at page 11, please identify what portion of an electric company's distribution is properly designed based on the non-coincident peaks of its customers. Please provide all documents that support this response.

Response

All portions of the electric company's distribution system are properly designed on the non-coincident peaks of its customers. Mr. Lively is aware of no documents to suggest that electric utilities should design its distribution system based on coincident peaks of its customers. Mr. Lively notes that the term coincident peak is commonly used in the electric industry to refer to the total maximum demand of the electric utility on its generation system. Accordingly, there is no part of the electric company's distribution system that is properly designed on the coincident peaks of its customers under that definition. Mr. Lively possesses no document in support of this response.

Information Request NSTAR-JS-1-10

Referring to Mr. Lively's testimony at page 11, lines 249 through 251, please explain in detail the reason(s) why "the efficiencies associated with distributed generation should not be a factor in the firm Standby Service proposed by NSTAR Electric in this proceeding...."

Response

Mr. Lively understands that NSTAR Electric's rates proposed in this proceeding are asserted by NSTAR Electric to be cost based rates. Assuming hypothetically for purposes of this discussion that the rates proposed by NSTAR are in fact cost based, cost based rates ignore what may happen on the customer side of the meter, including the efficiencies associated with distributed generation.

Further, for the utility to set prices based on the efficiencies of independent ownership of distributed generation could violate PURPA where PURPA dictates that prices involving qualifying facilities should not be based on the internal costs of those qualifying facilities.

Mr. Lively understands that some commissions do indeed depart from cost based ratemaking for some purposes. However, Mr. Lively is unaware that the DTE has chosen to do so in regard to distributed generation.

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Information Request NSTAR-JS-1-11

Referring to page 11, lines 254-255, is it Mr. Lively's position that "the purpose for which a consumer uses electricity is not a consideration" in establishing distribution rates in effect for NSTAR Electric?

Response

As in noted in the response to Information Request NSTAR-JS-1-10, cost based rates should ignore what may happen on the customer's side of the meter. Accordingly, the purpose for which a customer uses electricity is not a factor in establishing such rates.

Information Request NSTAR-JS-1-12

Referring to Mr. Lively's testimony at page 12, line 264, is it Mr. Lively's position that load data for customers located on the NSTAR Electric system support the conclusion that customers with distributed generation generally do not have a load pattern that is more costly than are the load patterns of customers without distributed generation. If the answer is "yes", please provide a copy of any studies performed by Mr. Lively or the Joint Supporters that support this position.

Response

No, as Mr. Lively has not reviewed load data for NSTAR Electric customers with and without distributed generation. However, there is no reason to believe that data for NSTAR Electric customers would be significantly different from the data presented in Elaine Saunder's testimony for MECo customers

It is Mr. Lively's position that NSTAR Electric has not in its direct case met NSTAR Electric's burden of proof that customers with distributed generation have a load pattern that is more costly than are load patterns of customers without distributed generation. Indeed, NSTAR Electric did not present any evidence in its affirmative direct case to indicate that customers with distributed generation have a load pattern that can be distinguished from the load pattern of customers without distributed generation, let alone whether one is more costly or less costly than the other.

Information Request NSTAR-JS-1-13

Referring to Mr. Lively's testimony at page 13, lines 298-299, define the term "insignificantly different" when comparing distributed generation annual billing demand ratios to the annual billing demand ratios of similarly sized customers without distributed generation. Please provide all analysis supporting this definition and the conclusion drawn.

Response

Mr. Lively uses the term "insignificantly different" to refer to statistical tests as to whether two groups of data can be said to be drawn from the same or different populations. As detailed in Mr. Lively's testimony at Page 13, Mr. Lively was relying on comments made by Ms. Saunders during a conference call.

Mr. Lively notes that NSTAR Electric has not met its burden of proof that customers with distributed generation have load patterns that are significantly different from the load patterns of customers without distributed generation, which would be required for NSTAR Electric to treat customers with distributed generation differently than the way that NSTAR Electric treats customers without distributed generation.

Indeed in its direct case, NSTAR Electric offered no evidence at all that customers with distributed generation have load patterns that are significantly different from the load patterns of customers without distributed generation

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Information Request NSTAR-JS-1-14

Referring to Mr. Lively's testimony at page 13, lines 305-306, please provide copies of all notes, documents or other records of his referenced "conference call."

Response

Attachment NSTAR-JS-1-14 contains a copy of Mr. Lively's notes of that "conference call."

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Information Request NSTAR-JS-1-15

Referring to Mr. Lively's testimony at pages 13 and 14, please provide an example calculation using the billing demand ratio approach presented in Mr. Lively's testimony with specific monthly customer demands over a 12-month period. Please identify all calculations and assumptions.

Response

Please see the direct testimony of Elaine Saunders filed in this docket on behalf of The Energy Consortium.

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Information Request NSTAR-JS-1-16

Please provide all data and any other documents provided to Mr. Lively by Ms. Saunders in relation to this proceeding.

Response

Mr. Lively has no data or other documents provided by Ms. Saunders other than her prefiled testimony.

Information Request NSTAR-JS-1-17

Please provide: (a) any and all correspondence; and (b) any and all written notes taken of any and all telephone conversations between Mr. Lively and Ms. Saunders.

Response

The only telephone conversation between Mr. Lively and Ms. Saunders was the conference call mentioned in Mr. Lively's testimony.

- (a) Mr. Lively has no correspondence between him and Ms. Saunders.
- (b) Mr. Lively's notes taken of the identified conversation are being provided in response to Information Request NSTAR-JS-1-14.

Information Request NSTAR-JS-1-18

Referring to page 14, lines 335-336, please provide all documents supporting the statement that “[t]he utility incurs costs based on the highest diversified demand placed on its system.” In particular, identify which of these documents related specifically to the distribution system.

Response

Mr. Lively currently does not possess documents pertaining to this statement.

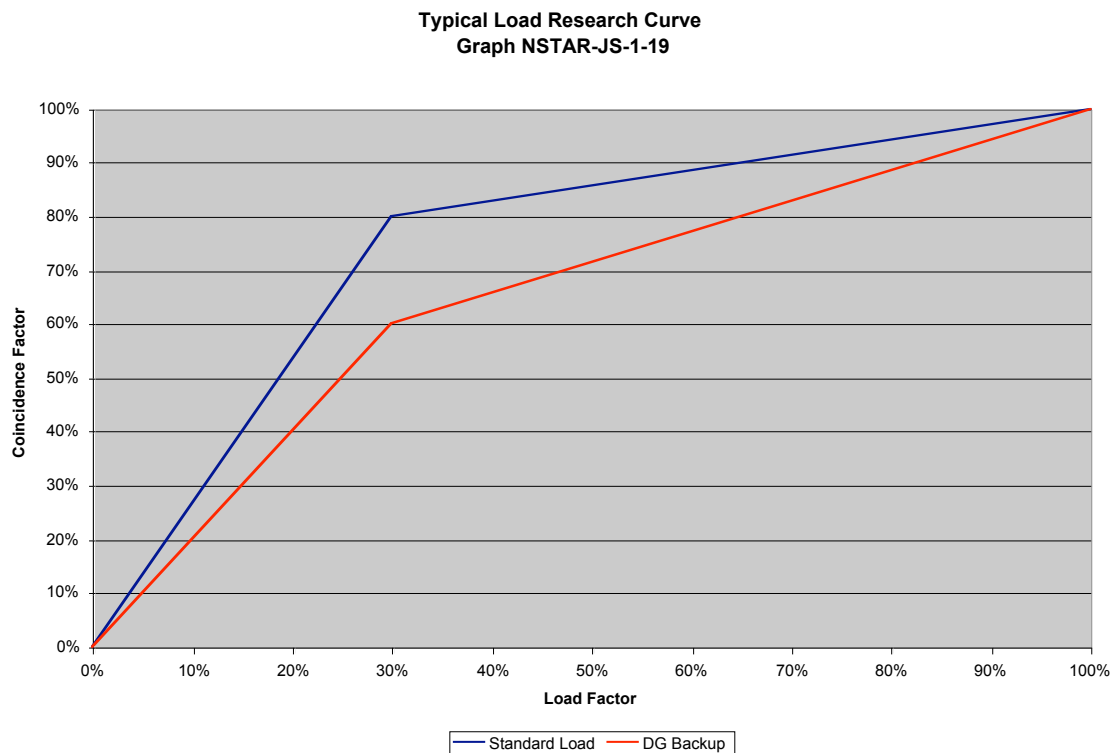
In practice, the utility incurs capital cost based on engineers’ design decisions based on their estimate of the highest diversified demand placed on the system. The utility also incurs costs based on electrical losses in the network, which are directly affected by the engineers’ design of the network. In particular see NSTAR response to Information Request AG-1-12.

Information Request NSTAR-JS-1-19

Referring to page 15, lines 347-349, please provide all documents, data, studies and reports supporting the statement that “most load research suggests that the diversified demand ration increases with the customer’s load factor.”

Response

Mr. Lively notes that there is a typographical error in the above citation, specifically “ration” should be “ratio”. Mr. Lively’s assertion is based on over 30 years of experience in the electric utility industry. His understanding, gained through that experience, is illustrated in Graph NSTAR-JS-1-19 and the comments that follow.



Graph NSTAR-JS-1-19 is a stylized version of the relation between a customer's load factor and the customer's coincidence factor. Mr. Lively notes that the coincidence factor can be defined as the ratio of the customer's contribution to a group peak demand divided by the customer's maximum demand. The group peak demand in this ratio can be the coincident demand that is the subject of NSTAR-JS-1-9 or some class diversified demand. Load research will produce similar graphs in both cases.

The graph for standard loads will typically be above the graph for backup to distributed generation. This is because of the nature of the load being imposed on the utility distribution grid. Standard loads are more likely to occur during peak periods, such as during store hours for a commercial establishment. Thus, a relatively low load factor will fill up most of the peak hours. Backup loads occur almost randomly. Thus, the result is closer to a straight line from the bottom left corner to the top right corner.

The tendency for standard loads to have a higher coincidence factor for a given load factor than would a backup up load can be demonstrated easily. Consider a store or office that is open 40 hours a week and has no electric load during the rest of the week. Consider also that the customer has a demand of 10 KW and weekly energy consumption of 400 KWH. That customer has a load factor of 23.8%. ($400 \text{ KWH} / 10 \text{ KW} / 168 \text{ hours/week}$) The customer will also have a coincidence factor of 100%, because the group demands of interest will all be during when the customer is open. This is the sample data point at the top of Graph NSTAR-JS-1-19. Clearly the load research curve for the standard load should be closer to the sample data point than the load research curve for backup load. This is an extreme example because most customers do not complete stop using electricity when the establishment is closed.

The importance of the relative placement of these two curves is that higher curves are associated with higher costs. The higher the coincidence factor is for a customer or group of customers, the more distribution and generating capacity that must be planned for the customer and the customer's contribution to class diversified demand on the distribution system or the customer's contribution to the coincident demand on the generation system. Mr. Lively possesses no other documentation for this statement.

Information Request NSTAR-JS-1-20

Referring to page 15, lines 352-356, please provide all documents and studies supporting the conclusion that a “significant characteristic of customers with distributed generation is a low load factor...”

Response

Mr. Lively currently does not possess documents and studies supporting that conclusion. Mr. Lively’s statement is based on his experience with developers of distributed generation who have attempted to maximize the energy produced by the distributed generation. Such attempts to maximize the energy produced by the distributed generation will produce a low load factor on the utility. This is often the case for distributed generators that produce power through cogeneration. Cogeneration lowers the marginal cost of producing energy, making the distributed generator more likely to be a less costly energy producer than central station power.

Mr. Lively notes that some distributed generators have higher energy costs and their economics are optimized by peak shaving instead of base loading. Such customers would have a higher load factor on the utility.

Mr. Lively notes that a customer with distributed generation is likely to have a lower coincidence factor than will a customer without distributed generation. This is discussed in response to NSTAR-JS-1-19. Mr. Lively notes that this is likely both for customers who base load their distributed generation and have a low load factor on the utility distribution system and for customers who peak shave with their distributed generation and have a higher load factor on the utility distribution system.

Mr. Lively wanted to use the response to Information Request TEC-2-1 to compare the load factors of customers with distributed generation to the load factors of customers without distributed generation. The response to Information Request TEC-2-1 was to be in an Excel file for customers to whom the standby tariff was to be applicable.

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However, the file distributed by NSTAR Electric is non-compliant in that it is not an Excel file and further it does not indicate which of these large customers might be subject to the standby tariff. The list contains 472 customers despite DTE-2-03 Att(a) showing Boston Edison with only 31 such customers with distributed generation in 2002 and DTE-3-1(a) showing Commonwealth Electric with only 28 such customers.

Information Request NSTAR-JS-1-21

Please provide all studies, analyses, reports and documentation in Mr. Lively's possession that compares the annual load factor for DG customers located in the NSTAR Electric service territories relative to the annual load factors for non-standby customers of the same size classification.

Response

Mr. Lively currently does not possess documents and studies comparing the annual load factor for DG customers located in the NSTAR Electric service territories relative to the annual load factors for non-standby customers of the same size classification.

Mr. Lively wanted to use the response to Information Request TEC-2-1 to compare the load factors of customers with distributed generation to the load factors of customers without distributed generation. The response to Information Request TEC-2-1 was to be in an Excel file for customers to whom the standby tariff was to be applicable.

However, the file distributed by NSTAR Electric is non-compliant in that it is not an Excel file and further it does not indicate which of these large customers might be subject to the standby tariff. The list contains 472 customers despite DTE-2-03 Att(a) showing Boston Edison with only 31 such customers with distributed generation in 2002 and DTE-3-1(a) showing Commonwealth Electric with only 28 such customers.

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Information Request: **NSTAR-JS-1-22**
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Person Responsible: Mark Lively
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Information Request NSTAR-JS-1-22

Please provide all studies, analyses, reports and documentation in Mr. Lively's possession that compares the annual load factor for DG customers located outside of the NSTAR Electric service territories relative to the annual load factors for non-standby customers of the same size classification.

Response

See response to NSTAR-JS-1-15. Aside from the data presented by Ms. Saunders, Mr. Lively possesses no such reports.

Information Request NSTAR-JS-1-23

Provide all studies or reports that identify the load factor of distributed generation customers for that portion of their load served by customer-owned distributed generation.

Response

Mr. Lively currently possesses no studies or reports that identify the load factor of distributed generation customers for that portion of their load served by customer-owned distributed generation.

Mr. Lively notes that “the load factor of distributed generation customers for that portion of their load served by customer-owned distributed generation” varies depending upon whether the customer-owned distributed generation is operated as base loaded or in a peak shaving configuration, which decision is often dependent on the structure of the host utility’s rates.

As is discussed in the responses to NSTAR-JS-1-19 and NSTAR-JS-1-20, the importance in determining cost causation is the coincidence factor of the customer’s load on the utility. The general expectation is that distributed generation will have a lower coincidence factor for any given load factor than will the standard load place by a customer on the distribution grid, as is illustrated in Graph NSTAR-JS-1-19.

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Information Request NSTAR-JS-1-24

Reference page 16, lines 386-387. Identify and provide all documents and any other support for the statement that the maximum load that a circuit must be able to sustain will be the “diversified” demand of all customers on that circuit.

Response

See response to NSTAR-JS-1-18. Mr. Lively possesses no other documents related to this portion of his testimony.

Information Request NSTAR-JS-1-25

Reference page 17, lines 392-394. Provide all documents that support the conclusion that it is “best practice” for a distribution company not to add distribution capacity to serve its standby customers on a kw-for-kw basis to meet the maximum non-coincident peak needs of each customer. What definition of “best practice” is being relied upon by Mr. Lively? Please provide a copy of this definition in a published document.

Response

Mr. Lively possesses no documents related to this conclusion in regard to the “best practice” for a distribution company. Mr. Lively is not using the words “best practices” as a term of art. Mr. Lively refers to the standard practice of designing distribution systems to meet the diversified demand placed on it instead of designing distribution systems to meet the sum of the individual demands of each customer.

Information Request NSTAR-JS-1-26

Referring to the “diversified demand concept” Mr. Lively describes in his testimony (Lively Testimony at 17, line 398), does Mr. Lively contend that electric distribution companies build distribution facilities on the basis of: (a) the maximum coincident demand of their customers on the distribution system or (b) the non-coincident demand of such customers? Please provide a list of all electric distribution companies that make such build decisions for their distribution system on the basis of the maximum coincident demand. Please provide all available documentation that confirms that such electric distribution companies use customers’ maximum coincident demand for purposes of constructing new distribution facilities.

Response

Mr. Lively contends that electric distribution companies build distribution facilities on the basis of projections of the non-coincident demand of such customers as those projections contribute to the maximum non-coincident demand expected on the distribution grid. See response to NSTAR-JS-1-9. Responding further, Mr. Lively is aware of no distribution utility that makes build decisions on the basis of maximum coincident demand.

Information Request NSTAR-JS-1-27

Please identify all utility companies that have adopted Mr. Lively's dynamic pricing mechanism for interruptible standby service. Provide all documents, including tariffs, reflecting this approach. Please identify all public utility commissions that have adopted Mr. Lively's dynamic pricing mechanism for interruptible standby service. Please provide a copy of all decisions of such public utility commissions that have adopted Mr. Lively's dynamic pricing methodology.

Response

No utility companies have adopted Mr. Lively's dynamic pricing mechanism for interruptible standby service. Mr. Lively notes that dynamic pricing has been implemented in various forms by the various independent system operators, including ISO-New England, New York ISO, PJM, California ISO. On such systems, dynamic pricing is generally referred to as locational marginal price (LMP). The details of their dynamic pricing programs can be obtained from the ISOs.

Mr. Lively notes that each of these ISOs differentiates its prices based on marginal line losses, as is proposed in Mr. Lively's dynamic pricing mechanism. Mr. Lively further notes that each of these ISO differentiates its prices based on constraints on the network, as is proposed in Mr. Lively's dynamic pricing mechanism.

The tariffs of these ISOs can be accessed via each ISO's website.

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Information Request: **NSTAR-JS-1-28**
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Information Request NSTAR-JS-1-28

Referring to page 19, lines 467-468, please provide a copy of the “standard load research” data that suggests that DG customers should pay lower demand rates than customers without DG

Response

Mr. Lively does not possess reports containing such data. See response to NSTAR-JS-1-19.

Information Request NSTAR-JS-1-29

Referring to page 24, lines 570-574. Is it Mr. Lively's understanding that NSTAR Electric's distribution system is operating in a regulated environment or a competitive market? Is it Mr. Lively's understanding that the rates of electric distribution companies in Massachusetts are subject to the authority of the Massachusetts Department of Energy and Telecommunications? (sic) Please explain.

Response

It is Mr. Lively's understanding that NSTAR Electric's distribution system is facing competition from distributed generation in a regulated environment.

Though no one may be competing with NSTAR Electric to provide a wire service to customers, NSTAR Electric's wire service must join with central station power to compete with distributed generation. It is Mr. Lively's understanding that the rates of electric distribution companies in the Commonwealth of Massachusetts are subject to the authority of the Massachusetts Department of Telecommunications and Energy.

In view of Mr. Lively's understanding that the rates of electric distribution companies in Massachusetts are subject to the authority of the Massachusetts Department of Telecommunications and Energy, NSTAR Electric faces competition from distributed generation in that customers can decide to buy distribution services from NSTAR Electric or to operate distributed generation. In that way "NSTAR Electric's distribution system is operating [both] in a regulated environment . . . [and] a competitive market".

Mr. Lively notes that other electric systems can be considered to be operating in a regulated competitive market, such as those operated by the ISOs.

Information Request NSTAR-JS-1-30

Referring to page 29, lines 711-712, provide all documents relied upon to support the conclusion that there has been a lack of cooperation between NSTAR Electric and the distributed generation industry. Please identify all specific individuals who have indicated to Mr. Lively that NSTAR Electric has been uncooperative with the DG industry.

Response

Mr. Lively possesses no document in this regard and can identify no specific individual who has made such a statement.

Mr. Lively notes that lack of cooperation between NSTAR Electric and the distributed generation industry is evidenced through:

- 1) NSTAR Electric's filing in this docket of a standby tariff for approval that would, if approved, destroy the economics of distributed generation in its service territory;
- 2) NSTAR Electric's subsequent effort to limit strictly the distributed generation industry's right to participate in this proceeding;
- 3) The lack of incentives for distributed generation to provide electricity directly to NSTAR Electric instead of having to back down the take of host loads as the only way to obtain the economics associated with distributed generation;
- 4) The suggestion in this proceeding that NSTAR Electric will negotiate the terms of interruption with each customer instead of providing a tariffed service, which will be prohibitively costly for both NSTAR Electric and the distributed generation industry, leading to few, if any, distributed generators participating in the program; and
- 5) The form of the reactive power determinant in setting the contract demand charge. While distributed generation can help stabilize voltages on the distribution grid, the tariff structure presumes that distributed generation will also have a deleterious impact on voltage.